

Taiga GOTO et al. S.N. 10/524,341
Page 5

Dkt. 1141/73790

REMARKS

The application has been reviewed in light of the Office Action dated February 4, 2009. Claims 1 and 3-9 are pending, with claims 2 and 10-14 having previously been canceled, without prejudice or disclaimer. By this amendment, claims 1 and 3-9 have been amended to place the claims in better form for examination and to clarify the claimed subject matter. Accordingly, claims 1 and 3-9 are presented for reconsideration, with claim 1 being in independent form.

Claims 1 and 3-9 were rejected under 35 U.S.C. §112, second paragraph, as allegedly indefinite.

In response, the claims have been amended to address the formal issues referenced in the Office Action.

Withdrawal of the rejection under 35 U.S.C. §112, second paragraph, is respectfully requested.

Claims 1, 3 and 7 were rejected under 35 U.S.C. § 103(a) as purportedly unpatentable over Grass et al. ("Angular weighted hybrid cone-beam CT reconstruction for circular trajectories", 2001, Physics in Medicine and Biology, Volume 46, Pages 1596-1610) in view of Eisenberg et al. (US 2003/0128801 A1). Claim 4 was rejected under 35 U.S.C. § 103(a) as purportedly unpatentable over Grass in view of Eisenberg and further in view of Suparta ("Focusing Computed Tomography", 2000, 15th WCNDT Roma 2000). Claims 1, 3, 4 and 7 were rejected under 35 U.S.C. § 103(a) as purportedly unpatentable over U.S. Patent No. 5,825,842 to Taguchi in view of Grass. Claims 5, 6, 8 and 9 were rejected under 35 U.S.C. § 103(a) as purportedly unpatentable over Taguchi in view of Grass and further in view of U.S. Patent No. 5,047,931 to Lin. Claims 1 and 4-7 were rejected under 35 U.S.C. § 103(a) as purportedly unpatentable over Hsieh (US 2003/0073893 A1) in view of Grass.

Taiga GOTO et al. S.N. 10/524,341

Dkt. 1141/73790

Page 6

Applicant respectfully submits that the present application is allowable over the cited art, for at least the reason that the cited art does not disclose or suggest the aspects of the present application that the reconfiguration means determines, for each voxel, a projection data phase range as an angle between 180 and 360 degrees from *projection data obtained at a spiral orbit scan* so that a difference in absolute values of cone angles at both ends of the projection data phase range used is reduced. Such aspects are discussed in the application, for example, in paragraphs [0096] through [0100], and shown in Fig. 28C.

Grass, as understood by applicant, proposes an angular weighting approach for performing hybrid cone-beam computed tomography (CT) reconstruction, wherein angular weighting techniques are proposed to be applied in volume reconstruction of axially truncated cone-beam CT projection data, acquired along a *circular* source-detector trajectory, as shown in Fig. 1 of Grass and discussed throughout Grass.

However, Grass says nothing whatsoever regarding performing a spiral orbit scan, and provides no guidance with respect to determining, for each voxel, a projection data phase range as an angle between 180 and 360 degrees from *projection data obtained at a spiral orbit scan* so that a difference in absolute values of cone angles at both ends of the projection data phase range used is reduced.

Eisenberg, as understood by applicant, proposes a multi-modality imaging system that includes a volume computed tomography (VCT) mode, a single photon emission computed tomography (SPECT) mode and a positron emission tomography (PET) mode, wherein a fused imaging analysis and computer aided diagnosis system is utilized to process the images produced by the multi-modality imaging system to obtain fused images, and the fused image data are analyzed and are compared with disease process models to provide feedback to the patient and

Taiga GOTO et al. S.N. 10/524,341
Page 7

Dkt. 1141/73790

medical professionals.

Fig. 23 (reproduced below) of Eisenberg illustrates step and shoot VCT imaging, wherein the scan process is initiated in a starting position and 360 degrees of cone beam projection data are acquired, and when data acquisition has been completed, the gantry 24 and the patient 30 are traversed relative to one another (that is, the "step" process along the Z-axis), and when the traversing motion has been completed, the acquisition of the VCT data (i.e., the "shoot" portion of the VCT imaging process) continues. The VCT data are then reconstructed and attached to one another to make a contiguous data set.

Step and Shoot VCT Imaging

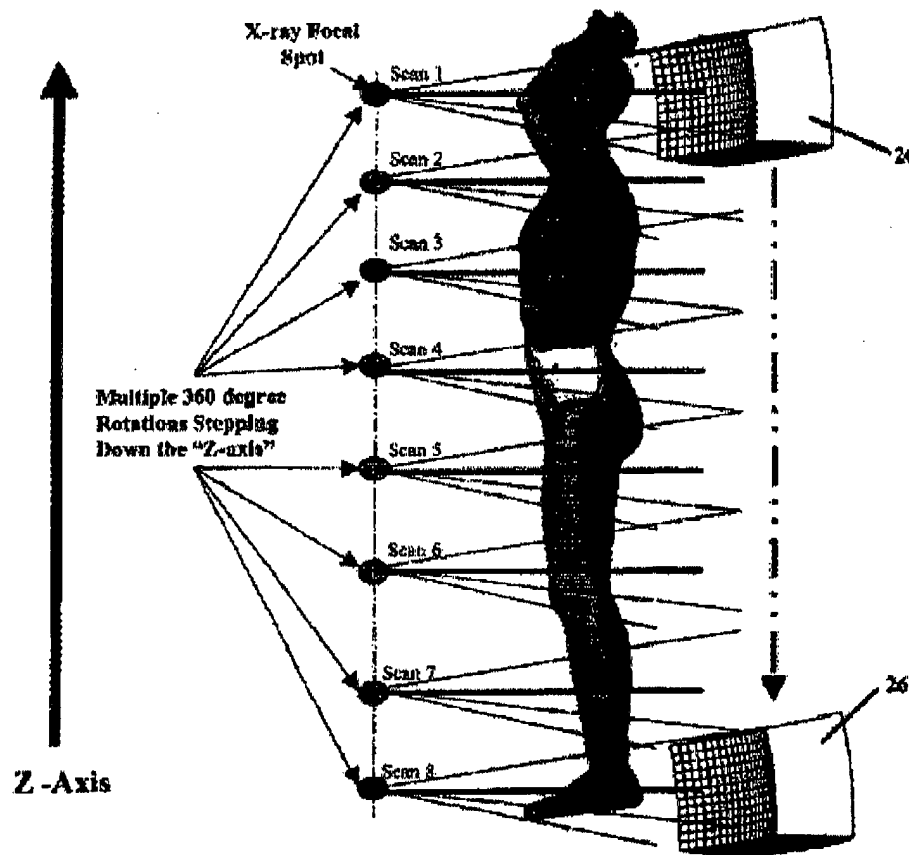


Figure 23

Taiga GOTO et al. S.N. 10/524,341
Page 8

Dkt. 1141/73790

Eisenberg refers to spiral imaging and Fig. 24b of Eisenberg shows a spiral scan path.

However, Eisenberg, like Grass, provides no guidance with respect to determining, for each voxel, a projection data phase range as an angle between 180 and 360 degrees from *projection data obtained at a spiral orbit scan* so that a difference in absolute values of cone angles at both ends of the projection data phase range used is reduced.

Suparta, as understood by applicant, proposes an approach for performing focusing computed tomography, including proposed techniques for performing sampling and image reconstruction.

However, Suparta, like the other cited references (including Taguchi, Lin and Hsieh), does not disclose or suggest determining, for each voxel, a projection data phase range as an angle between 180 and 360 degrees from *projection data obtained at a spiral orbit scan* so that a difference in absolute values of cone angles at both ends of the projection data phase range used is reduced.

Applicant submits that the cited art, even when considered along with common sense and common knowledge to one skilled in the art, does **NOT** render unpatentable the above-mentioned aspects of the present application.

Accordingly, applicant respectfully submits that independent claim 1 and the claims depending therefrom are allowable over the cited art.

In view of the remarks hereinabove, applicant submits that the application is now in condition for allowance, and earnestly solicits the allowance of the application.

If a petition for an extension of time is required to make this response timely, this paper should be considered to be such a petition. The Patent Office is hereby authorized to charge any required fees, and to credit any overpayment, to our Deposit Account No. 03-3125.

Taiga GOTO et al. S.N. 10/524,341
Page 9

Dkt. 1141/73790

If a telephone interview could advance the prosecution of this application, the Examiner is respectfully requested to call the undersigned attorney.

Respectfully submitted,



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